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EXAMINER

ELHILO, EISA B

ART UNIT PAPER NUMBER

1751

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/826,333

Applicant(s)

LANG ET AL.

Examiner

Eisa B Elhilo

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claims 27-62 are pending in this application.

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 27-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aaslyng et al. (WO 97/19998) in view of Junino et al. (US 6,090,160).

Aaslyng et al. (WO' 998) teaches a hair dyeing composition comprising oxidation bases (dye precursors) (see page 6, lines 19-37 and page 7, lines 1-25), couplers (modifiers) (see page 8, lines 1-12) and laccase enzyme as claimed in claims 27-29 (see page 3, lines 28-34), wherein the laccase enzyme derived from plant, animal, fungal, bacteria or microbiological origin as claimed in claims 30-33 and 59-62 (see page 5, lines 5-38). The quantity of the laccase enzyme in the dyeing composition can be calculated as claimed in claim 34 (see page 10, line 38, page 11, line 1-2), oxidation bases such as chloro-para-phenylenediamine, para-aminophenol, ortho-amino-phenol and pyridine derivatives such as 2,6-diaminopyridine as claimed in claims 35-38 and 42-45 (see page 6, lines 27-35), wherein the concentration of the oxidation bases (dye precursors) and couplers are within the claimed ranges as claimed in claims 46-48 (see Examples on pages 9 and 10), couplers as claimed in claim 50 (see page 8, lines 1- 12). The composition has a pH of 4 to 8, which is within the claimed range as claimed in claims 55 (see page 8, line 32). Aaslyng further, teaches a method which is similar to the method as claimed in claims 56-57 (see page 8, lines 13-23).

Aaslyng fails to teach the claimed coupler of 2-amino-4-N-(β -hydroxyethyl) aminoanisole in the dyeing composition.). Further, Aaslyng et al. does not teach oxidation bases such as double bases and acid addition salts as claimed.

However, the primary reference teaches and discloses couplers (modifiers) such as 2,4-diaminoanisole (see page 8, line 6) and it is further, taught by Aaslyng et al. that the dye precursor (oxidation base) may be used alone or in combination with other dye precursors (see page 7, lines 24-25).

Junino (US' 160) in analogous art of hair dyeing formulation, teaches a composition comprising oxidation bases, coupler 2,4-diaminoanisole and the specific coupler of 2-amino-4-N-(β -hydroxyethyl) aminoanisole as claimed (see col. 4, lines 35-38), double oxidation bases (see col. 3, formula (III)) and acid addition salts such as hydrochlorides and sulfates (see col. 5, lines 35-36).

Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art at the time of the invention would be motivated to modify the primary reference of Aaslyng by substituting 2,4-diaminoanisole with the 2-amino-4-N-(β -hydroxyethyl) aminoanisole and also to incorporate the double bases and acid addition salts as taught by Junino et al. with a reasonable expectation of success. Such a modification would be obvious because Aaslyng (WO' 998) teaches a hair dyeing composition comprising oxidation bases such as p-phenylenediamine (see page 7, lines 29-30), couplers such as 2,4-diaminoanisole (see page 8, line 6) and oxidizing agents such as laccase enzyme (see page 3, lines 28-34) and Junino (US' 160) teaches in an analogous art a hair dyeing composition comprising oxidation bases such as p-phenylenediamine (see col. 5, line 27) and couplers such as 2,4-diaminoanisole and 2-amino-4-

N-(β -hydroxyethyl) aminoanisol (see col. 4, lines 35-38). Junino et al. as a secondary reference clearly teaches the equivalence of these couplers in dyeing art and, thus, a person of ordinary skill in the art would be motivated to modify the primary reference by substituting the coupler of 2,4-diaminoanisol with the coupler 2-amino-4-N-(β -hydroxyethyl) aminoanisol. Aaslyng further, teaches that the modifiers (couplers) are used in hair dyeing composition to obtain a number of color tints (see page 7, lines 33-35) and one or more oxidation bases may be used in the dyeing composition. Junino et al. as a secondary reference clearly teaches that it is known that the hues obtained with these oxidation bases can be varied by combining them with couplers, also termed coloring modifiers (see col. 1, lines 19-22). Therefore, there is a reasonable expectation of success to combine the enzymatic system of laccase enzyme, couplers and oxidation bases of Aaslyng (WO' 998) with the oxidation bases and the coupler compounds of Junino (US' 160).

With respect to claim 58, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize multi-compartment devices for holding and maintaining the dyeing composition and would expect that these devices are applicable to the dyeing composition that comprises similar ingredients to those claimed, absent unexpected results.

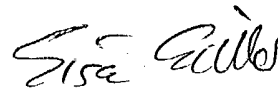
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B Elhilo whose telephone number is (571) 272-1315. The examiner can normally be reached on M - F (8:00 -5:30) with alternate Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eisa Elhilo
Patent Examiner
Art Unit 1751

November 8, 2004